# Training Day9 Report:

25 June 2024

### **Keys Takeways:**

#### Use of JSON in WebVOWL

- **Primary Format**: JSON is the main format used by WebVOWL to visualize ontologies.
- Benefits:
  - Simplicity and readability.
  - Broad interoperability across platforms.
  - Efficient parsing and performance.
- **Function**: Captures ontology structure and elements (classes, properties, relationships) in a VOWL-compliant JSON format for interactive visualizations.

#### Use of XML in WebVOWL

- Ontology Creation: Ontologies are often created in OWL (XML format) using tools like Protégé.
- Conversion to JSON: OWL (XML) files are converted to JSON for compatibility with WebVOWL.
- Visualization Workflow:
  - 1. Create/Edit ontology in XML.
  - 2. Convert XML (OWL) to JSON.
  - 3. Load JSON into WebVOWL for visualization.

## Creating a Smart City Architecture on WebVOWL

- Ontology Design: Define key elements (e.g., buildings, transportation, utilities) and their relationships.
- JSON Conversion: Convert the designed ontology from OWL (XML) to JSON.
- **Visualization**: Load the JSON file into WebVOWL to visualize and interact with the smart city architecture.
- **Analysis**: Utilize WebVOWL's interactive features to analyze and refine the smart city ontology.

#### **Hands-on Practice on WebVOWL**

- Setup: Install and configure WebVOWL.
- Loading Ontologies: Practice loading various JSON files representing different ontologies.
- **Interactive Exploration**: Use WebVOWL's tools to navigate, explore, and manipulate ontology visualizations.
- **Customization**: Modify and extend visualizations by editing the JSON ontology files and observing changes.